

Application No. 09/557,600
Confirmation No. 8246

Office Action Mailing Date: January 18, 2005
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Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A network comprising:

several network clusters each network cluster having at least one wireless network node and at least ~~one~~two fixed network nodes, each of the at least two fixed network nodes belonging to a sub-network and exchanging data with other fixed network nodes of the sub-network through wire connections, each of ~~said the~~ at least ~~one~~two fixed network nodes and the other fixed network nodes being coupled to a respective wireless network node of ~~said the~~ at least one wireless network node via a respective wire interface, each of ~~said the~~ at least one wireless network node including a transmitter for the wireless transmission of packets in time slots of given length in a time multiplex process, the variable length of ~~said the~~ packets having at least a value which is smaller than the length of a fixedly given time slot,

wherein a transmitting wireless network node of ~~said the~~ wireless network nodes is configured for combining several packets into a superpacket and for transmitting the superpacket to all wireless network nodes authorized for the data transmission via a point-to-multipoint link, wherein the superpacket is transmitted to all wireless network nodes in one or more time slots of the fixedly given time slots wherein each of the one or more time slots includes at least two packets of the superpacket, and

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wherein a receiving wireless network node of ~~said the~~ wireless network nodes after reception of the superpacket is designed to extract a packet from the superpacket if the destination of the packet of ~~said transmitted packets~~ the superpacket lies in a network cluster corresponding to ~~said the~~ receiving wireless network node;

~~said the~~ transmitting wireless network node being configured for segmenting the superpacket into cells when the length of the superpacket exceeds the length of the fixedly given time slots, and for inserting the cells into several time slots, wherein each cell includes at least two packets from the superpacket, and

~~said the~~ receiving wireless network node which receives the cells being configured for forming the superpacket from the cells.

2. (Previously Canceled)

3. (Currently Amended) A network as claimed in claim 1, wherein ~~said the~~ transmitting wireless network node is designed for inserting the cells into several time slots of a frame or into one or several time slots of several frames.

4. (Previously Presented) A network as claimed in claim 1, wherein one of the wireless network nodes from among the wireless network nodes which form a wireless network is constructed so as to form a central node which is designed to control the radio traffic.

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5. (Currently Amended) A network as claimed in claim 1, wherein ~~said the~~ receiving wireless network node which receives a packet is designed for comparing the address identification in the control field of the packet with an address which belongs to the associated network cluster and which identifies the destination.

6. (Currently Amended) A network as claimed in claim 5, wherein ~~said the~~ receiving wireless network node contains a table for the storage of all addresses of the associated network cluster.

7. (Currently Amended) A network as claimed in claim 1, further comprising a management system which controls at least one of ~~said the~~ wireless network nodes such that ~~said the~~ at least one wireless network node provides the establishment of point-to-point connections only instead of point-to-multipoint connections.

8. (Currently Amended) A network as claimed in claim 7, wherein ~~said the~~ transmitting wireless network node is designed for sending a key via a point-to-multipoint connection and for sending coded data via a point-to-point connection.

9. (Currently Amended) A wireless network node in a network cluster of a network, ~~said the~~ wireless network node including a transmitter designed for the wireless transmission of packets in time slots of given length in a time multiplex process, the variable length of ~~said the~~ packets having at least a value which is smaller than the length of a fixedly given time slot,

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wherein the wireless network node is designed for combining several packets into a superpacket and for transmitting said superpacket via a point-to-multipoint connection to all wireless network nodes authorized for the data transmission; and

wherein the superpacket is transmitted to all wireless network nodes in one or more time slots of the fixedly given time slots wherein each of the one or more time slots includes at least two packets of the superpacket, and

said the wireless network node being further configured for segmenting said the superpacket into cells when the length of the superpacket exceeds the length of the fixedly given time slot, and for inserting the cells into several time slots so that a receiving wireless network node which receives the cells forms said the superpacket from the cells; and

said the wireless network node further including means for coupling to at least ~~one~~ two fixed network nodes via a respective wire interface, and

wherein the at least two fixed network nodes belong to a sub-network and exchange data with other fixed network nodes of the sub-network through wire connections.

10. (Currently Amended) A wireless network node in a network cluster of a network, said the wireless network node including a receiver designed for the wireless reception of packets in time slots of given length in a time multiplex process, the variable length of said the packets having at least a value which is smaller than the length of a fixedly given time slot,

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~~said the~~ wireless network node further including means for coupling to at least ~~one two~~ fixed network nodes via a respective wire interface, and

wherein the at least two fixed network nodes belong to a sub-network and exchange data with other fixed network nodes of the sub-network through wire connections.

10. (Currently Amended) A wireless network node in a network cluster of a network, ~~said the~~ wireless network node including a receiver designed for the wireless reception of packets in time slots of given length in a time multiplex process, the variable length of ~~said the~~ packets having at least a value which is smaller than the length of a fixedly given time slot,

wherein the wireless network node is designed so as to ~~derive~~ extract a packet from a superpacket after reception of ~~the said transmitted packets~~ superpacket if the designation of one of ~~said the~~ packets of ~~said the received packets~~ superpacket lies within the network cluster; and

~~said the~~ wireless network node being further configured to form ~~said the~~ superpacket from cells received from a transmitting node which segments ~~said the~~ superpacket into ~~said the~~ cells when the length of the superpacket exceeds the length of the fixedly given time slot and inserts ~~said the~~ cells into several time slots wherein each of the cells includes at least two packets from the superpacket; and

~~said the~~ wireless network node further including means for coupling to at least ~~one two~~ fixed network nodes via a respective wire interface, wherein the at least two fixed network nodes belong to a sub-network and exchange data with other fixed network nodes of the sub-network through wire connections.

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~~said-the~~ at least ~~one-two~~ fixed network nodes ~~and the other fixed network nodes~~ coupled to a respective wireless network node of ~~said-the~~ plurality of network clusters via a respective wire interface, ~~and~~

wherein a transmitting wireless network node of ~~said-the~~ wireless network nodes is configured to combine several packets into a superpacket and transmit the superpacket to receiving wireless network nodes of ~~said-the~~ wireless network nodes; and

~~wherein the superpacket is transmitted to all wireless network nodes in one or more time slots of the fixedly given time slots wherein each of the one or more time slots includes at least two packets of the superpacket, and~~

wherein a receiving wireless network node of ~~said-the~~ wireless network nodes after reception of a superpacket is configured to derive a packet from the superpacket if a destination of the packet of ~~the said-transmitted-packets-superpacket~~ lies in a network cluster of ~~said-the~~ plurality of network clusters corresponding to ~~said-the~~ receiving wireless network node; ~~and~~

~~said-the~~ transmitting wireless network node being configured to segment the superpacket into cells when a length of the superpacket exceeds a length of a fixedly given time slots, and to insert the cells into several time slots; and

~~said-the~~ receiving wireless network nodes which receive ~~said-the~~ cells being configured to form ~~said-the~~ superpacket from ~~said-the~~ cells.

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13. (Currently Amended) A network as claimed in claim 12, wherein ~~said the~~ transmitting wireless network node is designed for inserting the cells into several time slots of a frame or into one or several time slots of several frames.

14. (Previously Presented) A network as claimed in claim 12, wherein one of the wireless network nodes is configured to act as a central node which is designed to control radio traffic.

15. (Currently Amended) A network as claimed in claim 12, wherein ~~said the~~ receiving wireless network node which receives a packet is configured to compare an address identification in a control field of the packet with an address which belongs to an associated network cluster.

16. (Currently Amended) A network as claimed in claim 15, wherein ~~said the~~ receiving wireless network node contains a table for storage of all addresses of the associated network cluster.

17. (Currently Amended) A network as claimed in claim 12, wherein the network comprises a management system which controls at least one of ~~said the~~ wireless network nodes such that ~~said the~~ at least one wireless network node provides establishment of point-to-point connections or point-to-multipoint connections.

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18. (Currently Amended) A network as claimed in claim 17, wherein ~~said the~~ at least one transmitting wireless network node is configured to send a key via a point-to-multipoint connection and to send coded data via a point-to-point connection.

19. (Currently Amended) A network as claimed in claim 1, wherein ~~said the~~ transmitting wireless network node is designed for inserting the cells into several time slots of several frames.

20. (Currently Amended) A network as claimed in claim 10, wherein ~~said the~~ wireless network node is designed for inserting the cells into several time slots of several frames.

21. (Currently Amended) A network as claimed in claim 12, wherein ~~said the~~ transmitting wireless network node is designed for inserting the cells into several time slots of several frames.